



Disposal of Demolition Wastes Contaminated with Lead or Other Heavy Metals

Hazardous Waste Program fact sheet

8/2004

This bulletin contains guidance for households, property owners, businesses, and contractors who must dispose of the following types of waste:

- Paint Residue - Paint chips, paint scrapings, and paint-contaminated blast residue from building renovations or demolition projects,
- Demolition Debris - Masonry, metal and boards that have been painted with lead-based (or other heavy metal-based) paint, and
- Scrap Metal - Metal objects that contain lead or other heavy metals.

This bulletin is not intended for guidance on the management of surface coatings removed from bridges, water towers or other similar outdoor structures.

Why are these wastes a concern?

Recent studies conducted by the U.S. Agency for Toxic Substances and Disease Registry, and by independent researchers, show that the health effects of lead exposure are greater than previously thought. Children are especially vulnerable to the effects of lead poisoning. Because lead and other toxic heavy metals may be contained in the wastes noted above, they require careful management and disposal.

For many years, lead-based paint was used in residences and businesses for its stable coating properties. Although lead-based paint was virtually banned by the Consumer Product Safety Commission in 1978 for residential application, it is often encountered when buildings are renovated or demolished. Also, lead-based paint is still manufactured and sold for corrosion/rust inhibition on steel structures and for other industrial purposes.

In older buildings, lead was also used for roofs, cornices, tank linings, and electrical conduits. In plumbing, soft solder, an alloy of lead and tin, was used for soldering tinsplate and copper pipe joints.

How may I dispose of these wastes?

In Missouri, the requirements for waste disposal depend on the kind of waste you need to dispose of, and how you are regulated by the law. In all cases, wastes must be managed and disposed of so as not to adversely affect the health of humans, pose a threat to the environment, or create a public nuisance.

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Residential Properties Containing Not More Than Four Family Units

This classification includes owner-occupied family residences; one family rental properties; and owner-occupied, multi-family dwellings of up to four family units. For multi-family dwellings, the owner of the property must occupy at least one of the four units.

All of these management options apply, whether or not a contractor is doing the work for you.

- **Paint Residue** - Paint residue may be placed in the household trash. Before disposal wrap tightly in a plastic bag or other container. It will be picked up by your trash hauler and taken to a sanitary landfill for disposal.
- **Demolition Debris** - May be placed in your household trash. It may be picked up by your trash hauler and taken to a sanitary or demolition landfill for disposal.
- **Scrap Metal** - Scrap metal should be taken to a salvage yard operator for recycling. If this is not possible, the metal may be placed in your household trash and picked up by your waste hauler for disposal at a sanitary or demolition landfill.

Other Structures

This category includes multi-family dwellings that are not owner occupied; multi-family dwellings containing more than four family units; commercial and business enterprises; institutions and industrial buildings; and other structures not specifically identified.

Paint Residue - Paint residue must be laboratory tested prior to disposal. The appropriate test method is the Toxicity Characteristic Leaching Procedure (TCLP), EPA Method 1311, which is described in Appendix 11 of the Code of Federal Regulations, Title 40, Part 261 (40 CFR Part 261). The test must include the eight metals noted in 40 CFR Part 261.24 (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). Environmental laboratories capable of conducting a TCLP may be found in the telephone directory "Yellow Pages."

If one or more of analytical limits meets or exceeds the regulatory limit, the waste is hazardous. Hazardous wastes must be managed, transported, and disposed of according to the Missouri Hazardous Waste Management Law and Regulations. This may require that the paint residue be sent to an authorized disposal facility that specialized in hazardous waste. In some cases, a lead smelter may accept lead-based paints for use in their lead production processes.

If laboratory analysis shows that the paint residue is non-hazardous, it must be disposed of at a sanitary landfill as "special waste." Paint residue may not be disposed of in a demolition landfill. Procedures for managing special wastes are included in the guidance, titled *Special Waste* technical bulletin. You may contact the Environmental Assistance Office for copies or questions regarding this technical bulletin.

Demolition Debris - Demolition debris need not be tested prior to disposal. Such wastes may be disposed of in either a sanitary or a demolition landfill in Missouri.

Scrap Metal - Scrap metal should be sent to a salvage yard for recycling. If this is not possible, the metal may be disposed of at a sanitary or demolition landfill.

About landfill disposal

Please note that a trash hauler or landfill operator has the right to refuse to accept any waste. A landfill may also request that you submit a special waste disposal request (forms available from the Solid Waste Management Program). For this reason, we recommend that you contact the landfill operator for permission prior to shipment. Refusal by one landfill operator does not preclude the generator from seeking another landfill operator's permission for disposal.

About recycling scrap metal

The recommended disposal method for scrap metal is recycling rather than disposal. Scrap metal may be sold or given to a salvage yard dealer. Lead scrap metal may also be sent directly to a lead smelter for re-melting and production of new lead and lead products.

Additional considerations and sources

Hazardous waste requirements are found in the Missouri Hazardous Waste Management Laws, Sections 260.345 through 260.575 of the Revised Statutes of Missouri (RSMo). The Missouri Hazardous Waste Regulations are found in Title 10, Division 25 of the Code of State Regulations (CSR). Most of the federal environmental requirements in Title 40 of the Code of Federal Regulations (CFR) are adopted by reference into the Missouri regulations.

Solid waste requirements are found in the Solid Waste Management Law in Sections 260.200 through 260.345 RSMo, and the regulations in Title 10, Division 80 in the CSR.

Copies of the Revised Statutes of Missouri are available through the Revisor of Statutes at (573) 526-1288, or are available online at www.moga.mo.gov. Copies of the Missouri Code of State Regulations are available through the Missouri Secretary of State at (573) 751-4015, or are available online at www.sos.missouri.gov/adrules/csr/csr.asp. Federal regulations may be viewed at federal depository libraries or may be purchased from a U.S. Government Bookstore, the U.S. Government Printing Office, or from a commercial information service such as the Bureau of National Affairs. Federal Regulations are also available online at www.access.gpo.gov/nara/cfr/index.html.

Other Guidance

The Missouri Department of Health - Office of Lead Licensing and Accreditation may be contacted for information regarding training, licensure and work practice standards for lead abatement activities. Disposal is an abatement activity. See Missouri Revised Statutes 701.300 701.338.

Please note that many municipalities have additional requirements in addition to those discussed above.

For more information call or write:

Missouri Department of Natural Resources
Hazardous Waste Program
P.O. Box 176, Jefferson City, MO 65102-0176
1-800-361-4827 or (573) 751-7560 office
(573) 751-7869 fax
www.dnr.mo.gov/alpd/hwp Program Home Page

Missouri Department of Natural Resources
Solid Waste Management Program
1-800-361-4827 or (573) 751-5401 office
(573) 526-3902 fax
www.dnr.mo.gov/alpd/swmp Program Home Page

Environmental Assistance Office
1-800-361-4827 or (573) 526-6627 office
(573) 526-5808 fax
www.dnr.mo.gov/oac Program Home Page

Missouri Department of Health

Office of Lead Licensing and Accreditation
1-888-837-0927 or (573) 526-5873

Residential Properties Containing Not More Than Four Family Units

- Paint residue - Wrap tightly in a plastic bag or other container. Place in trash for pickup by trash hauler.
- Demolition debris - Place in trash for pickup by trash hauler.
- Scrap metal - Send to salvage yard for recycling, or place in the trash for pickup by trash hauler.

Other Structures

- Paint residue - Test to determine if hazardous.
 - If non-hazardous - Send to a sanitary landfill as special waste.
 - If hazardous - Manage, transport, and dispose of as hazardous waste.
 - May send to a business that manages hazardous waste or send to a lead smelter for reuse.
- Demolition debris - Sanitary or demolition landfill disposal.
- Scrap metal - Send to a salvage yard operator for recycling. If this is not possible, send to a sanitary or demolition landfill for disposal.